## **Claims**

## We claim:

- 1. A method of suppressing the immune system of a human after allogenic cell, tissue or organ transplantation, the method comprising administering to the human a therapeutically effective amount of a caspase-8 inhibitor, or a pharmaceutically effective salt thereof.
- 2. The method of claim 1, wherein the caspase-8 inhibitor has a non-biologically occurring molecular structure.
- 3. The method of claim 1, wherein the caspase-8 inhibitor comprises an oligopeptide or polypeptide.
- 4. The method of claim 3, wherein the caspase-8 inhibitor comprises a tetrapeptide or a partial sequence of a native protein.
- 5. The method of claim 3, wherein the molecular structure of the oligopeptide or polypeptide includes a chemical modification at the N- or C-terminus.
- 6. The method of claim 5, wherein the chemical modification is at the C-terminus and comprises an aldehyde derivatization or the introduction of a fluromethylketone or acyloxymethylketone group.
- 7. The method of claim 3, wherein the caspase-8 inhibitor comprises a sequence chosen from VAD, IETD and YVAD.
- 8. The method of claim 6, wherein the caspase-8 inhibitor comprises the sequence IETD-fmk.

- 9. The method of claim 1, wherein the caspase-8 inhibitor has a naturally occurring biological origin.
- 10. The method of claim 9, wherein the caspase-8 inhibitor has a viral, bacterial or eukaryotic origin.
- 11. A method of treating a tumor disease of the lymphatic system of a human, the method comprising administering to the human a therapeutically effective amount of a caspase-8 inhibitor, or a pharmaceutically effective salt thereof.
- 12. The method of claim 11, wherein the caspase-8 inhibitor has a non-biologically occurring molecular structure.
- 13. The method of claim 11, wherein the caspase-8 inhibitor comprises an oligopeptide or polypeptide.
- 14. The method of claim 13, wherein the caspase-8 inhibitor comprises a tetrapeptide or a partial sequence of a native protein.
- 15. The method of claim 13, wherein the molecular structure of the oligopeptide or polypeptide includes a chemical modification at the N- or C-terminus.
- 16. The method of claim 15, wherein the chemical modification is at the C-terminus and comprises an aldehyde derivatization or the introduction of a fluromethylketone or acyloxymethylketone group.
- 17. The method of claim 13, wherein the caspase-8 inhibitor comprises a sequence chosen from VAD, IETD and YVAD.

- 18. The method of claim 16, wherein the caspase-8 inhibitor comprises the sequence IETD-fmk.
- 19. The method of claim 11, wherein the caspase-8 inhibitor has a naturally occurring biological origin.
- 20. The method of claim 19, wherein the caspase-8 inhibitor has a viral, bacterial or eukaryotic origin.
- 21. A method of inhibiting the proliferation of peripheral blood lymphocytes in a human, the method comprising administering to the human, a therapeutically effective amount of a caspase-8 inhibitor, or a pharmacologically acceptable salt thereof.